

FIG.1

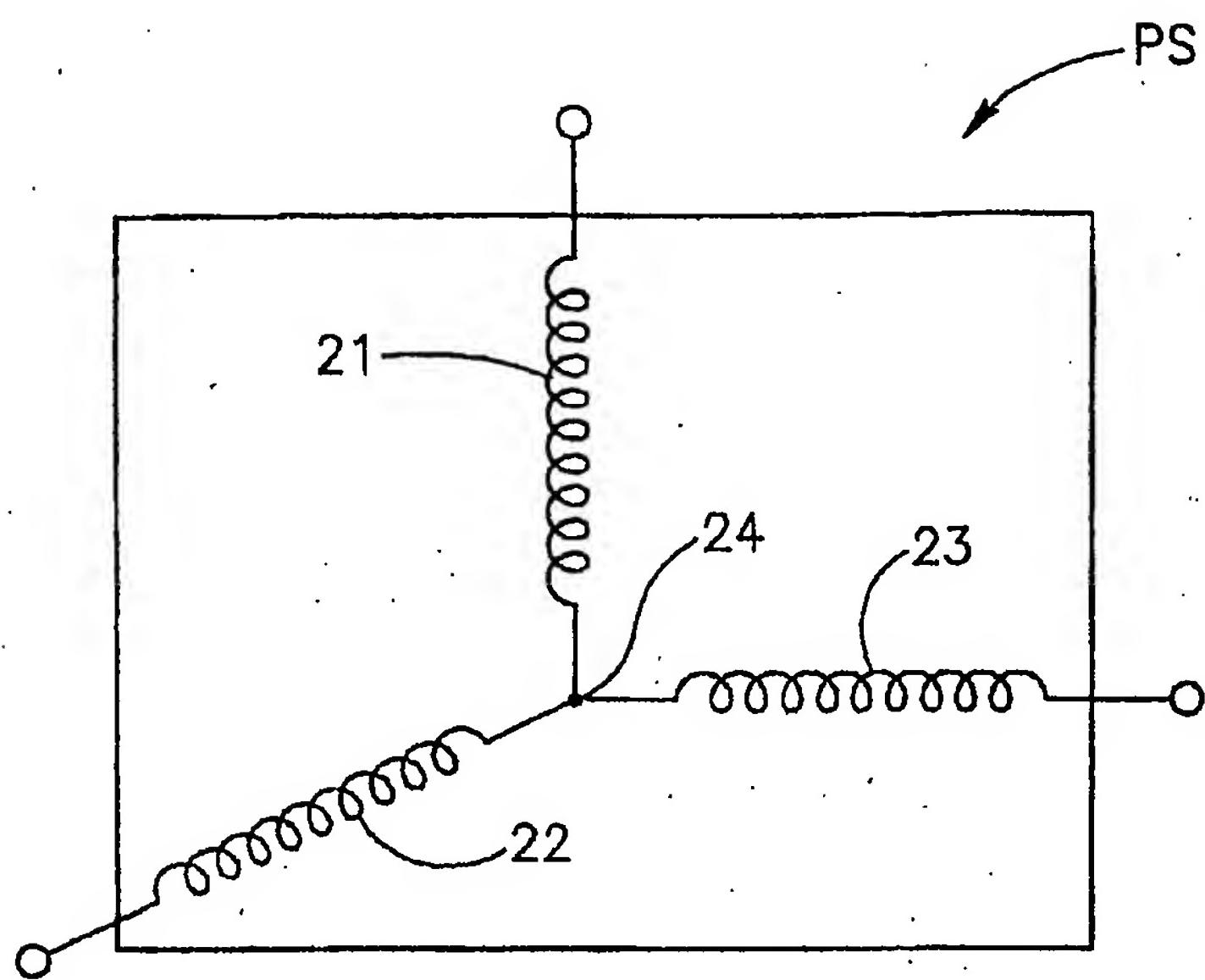


FIG.2

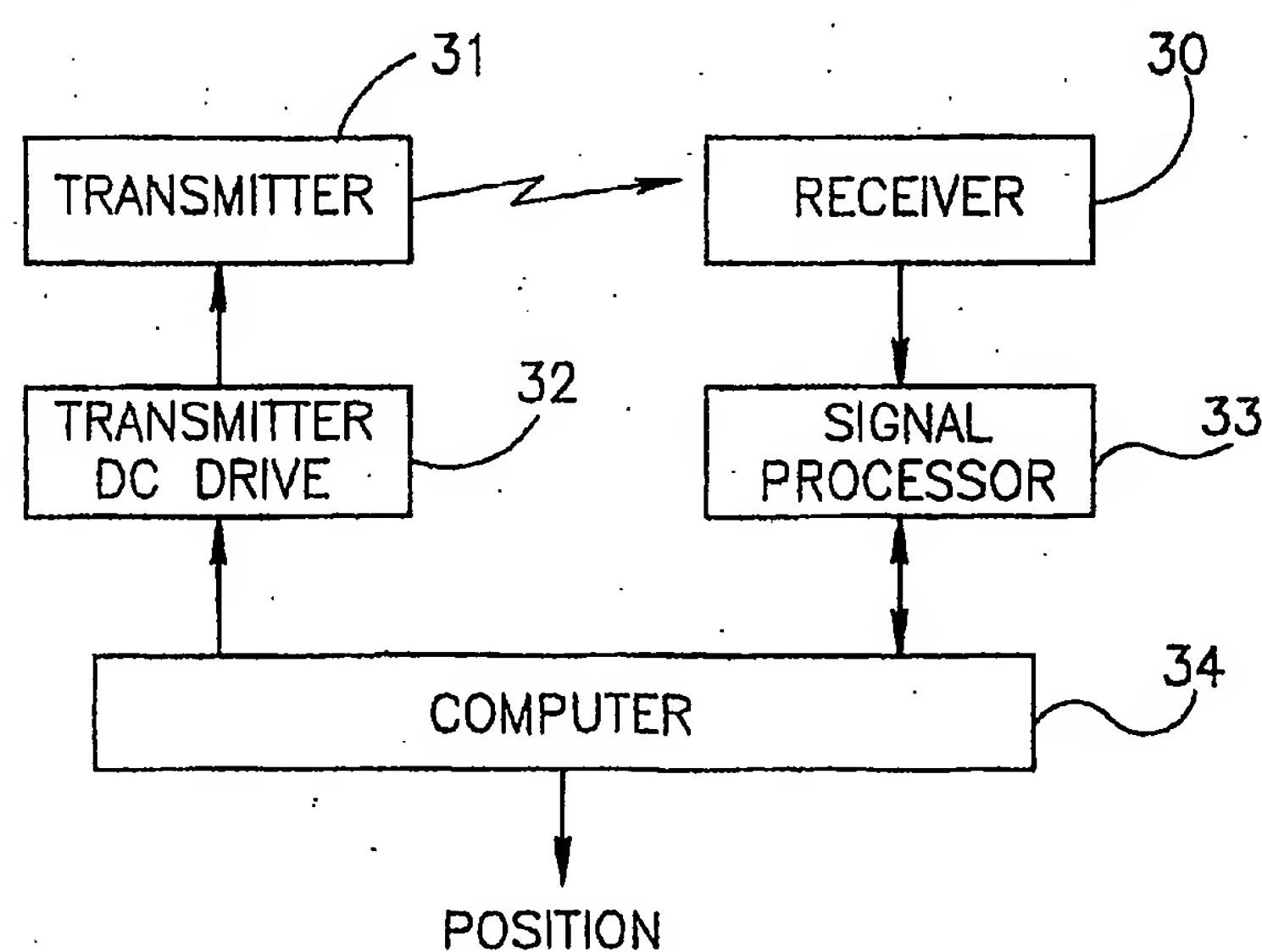


FIG.3

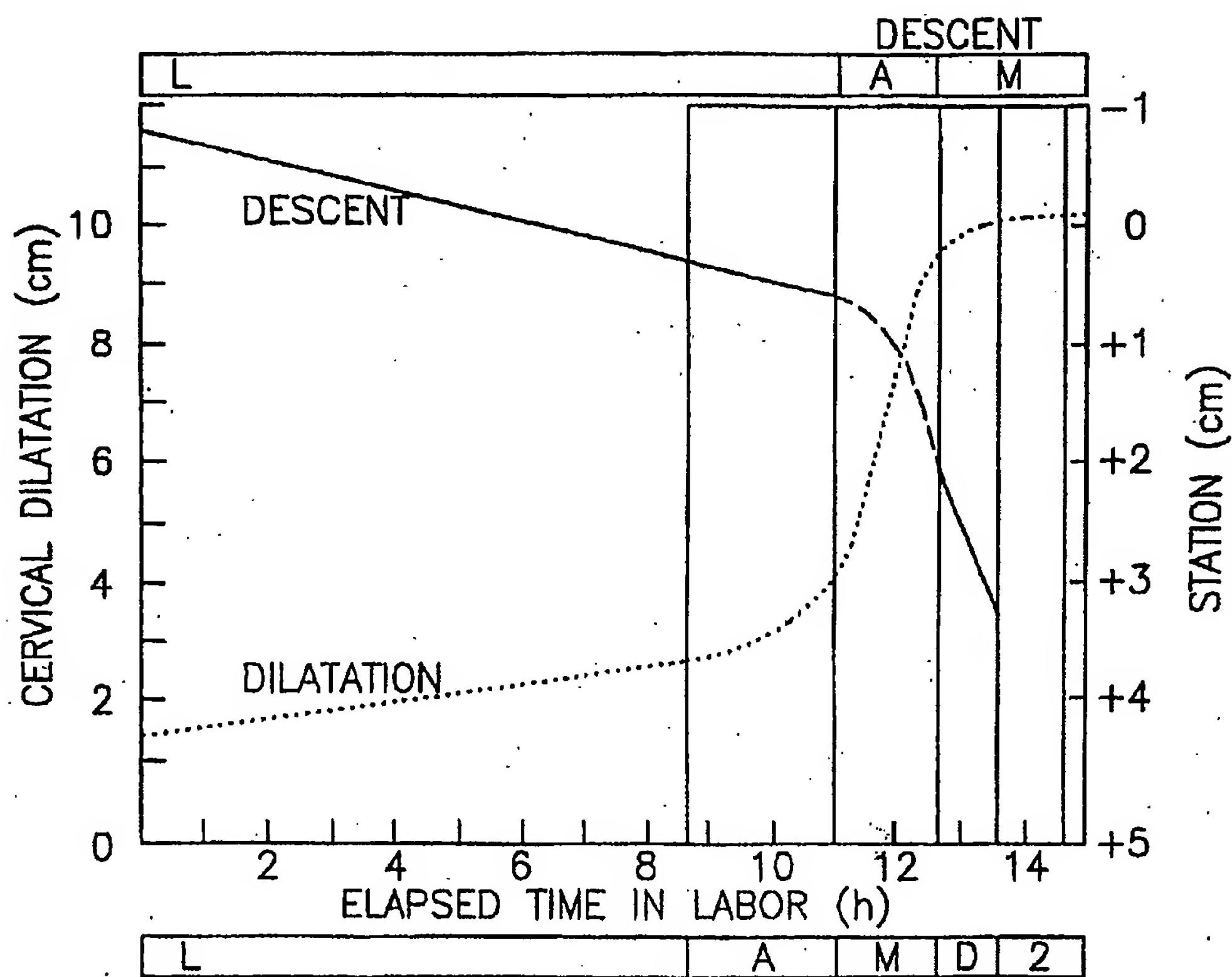


FIG.4

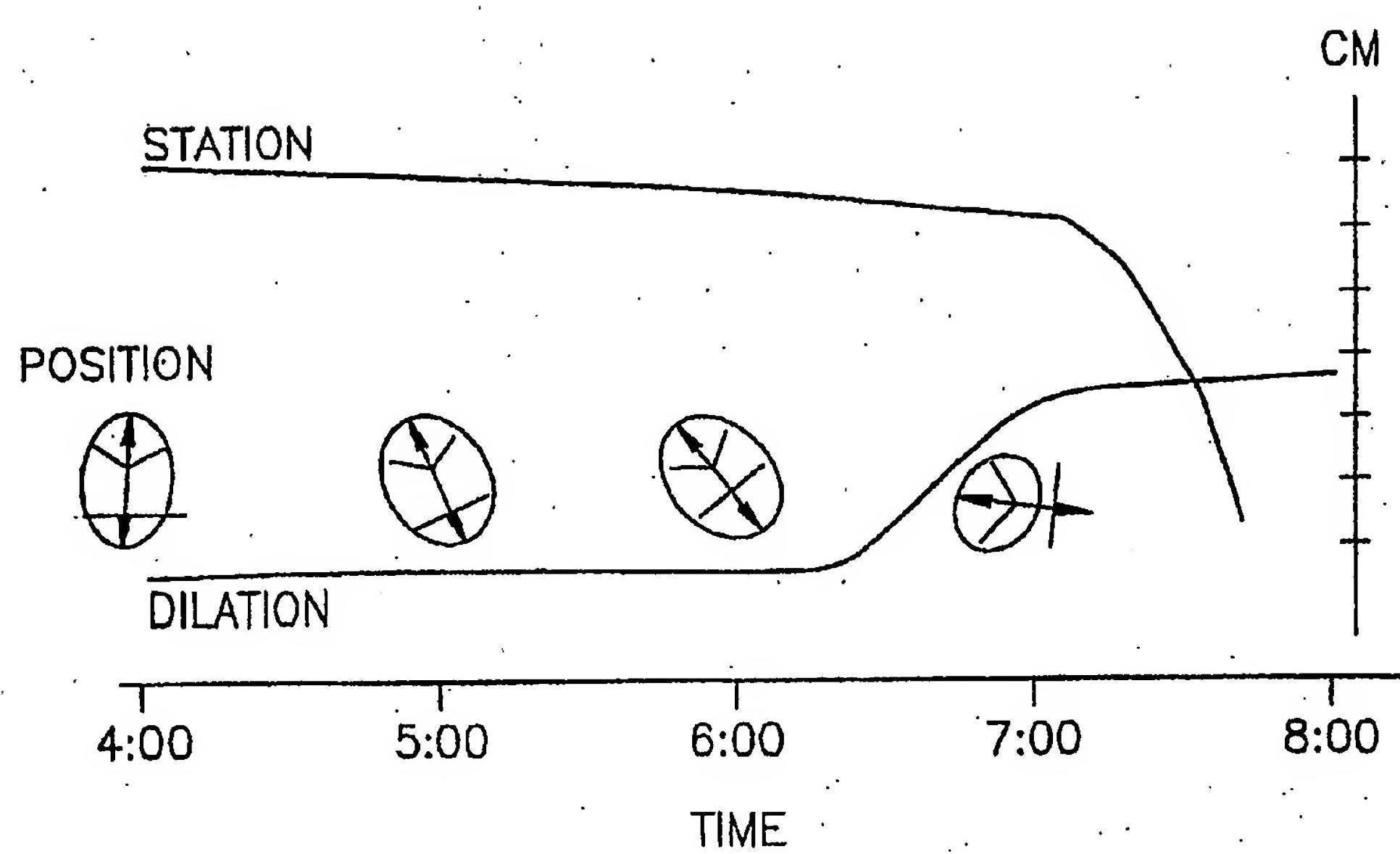


FIG.4A

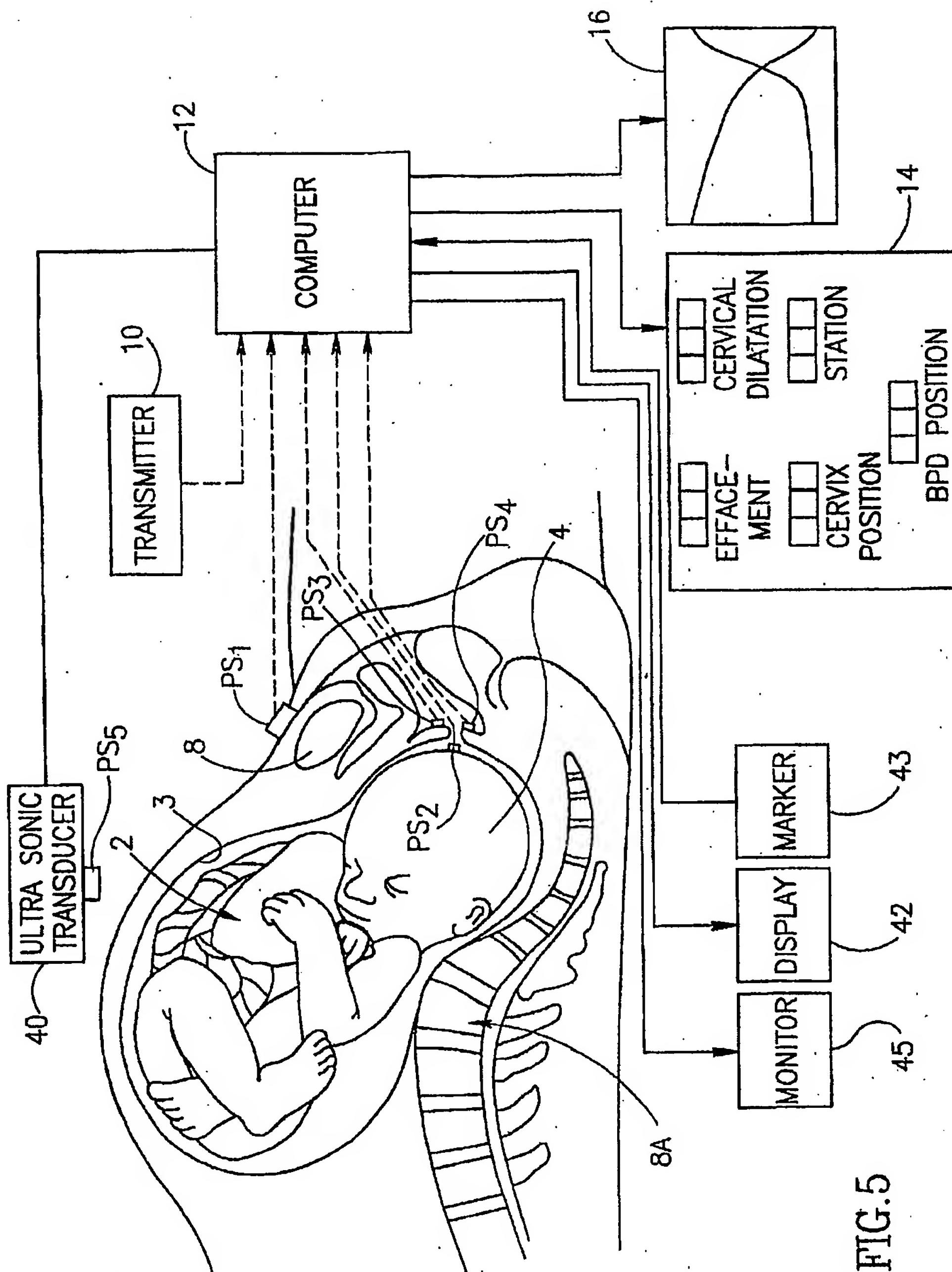


FIG. 5

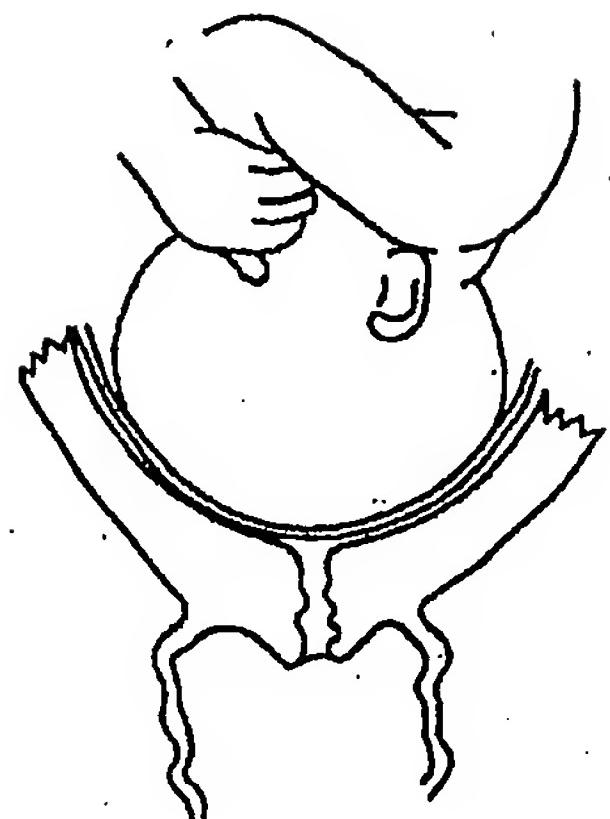


FIG.6A

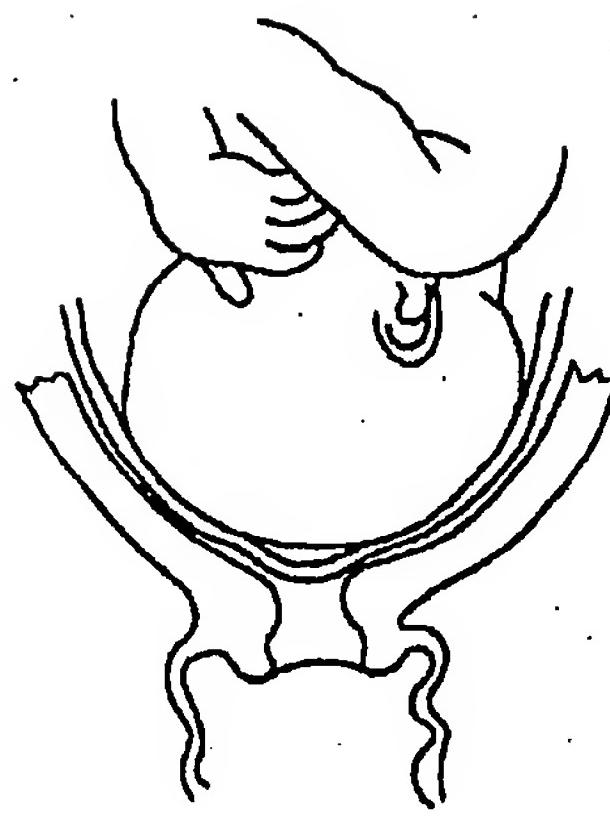


FIG.6B

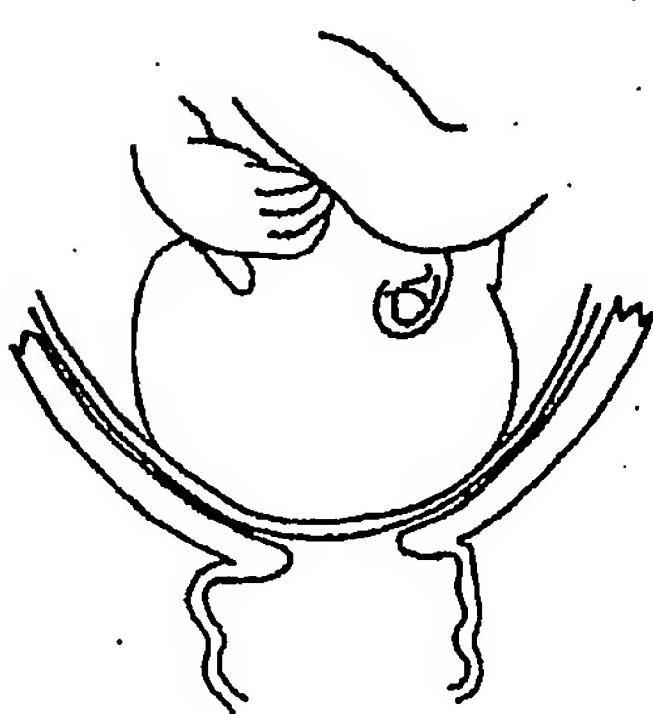


FIG.6C



FIG.6D

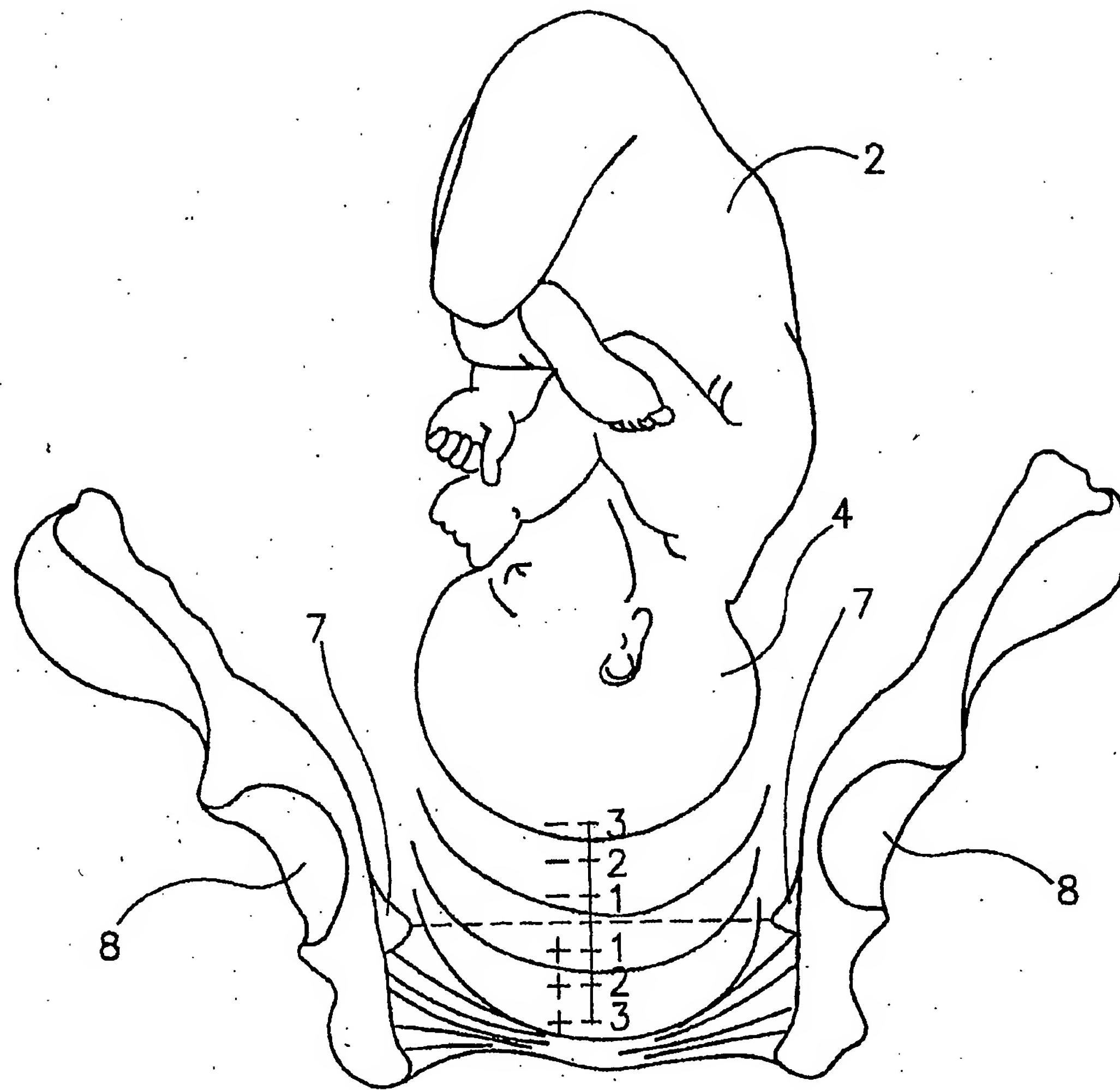


FIG. 7

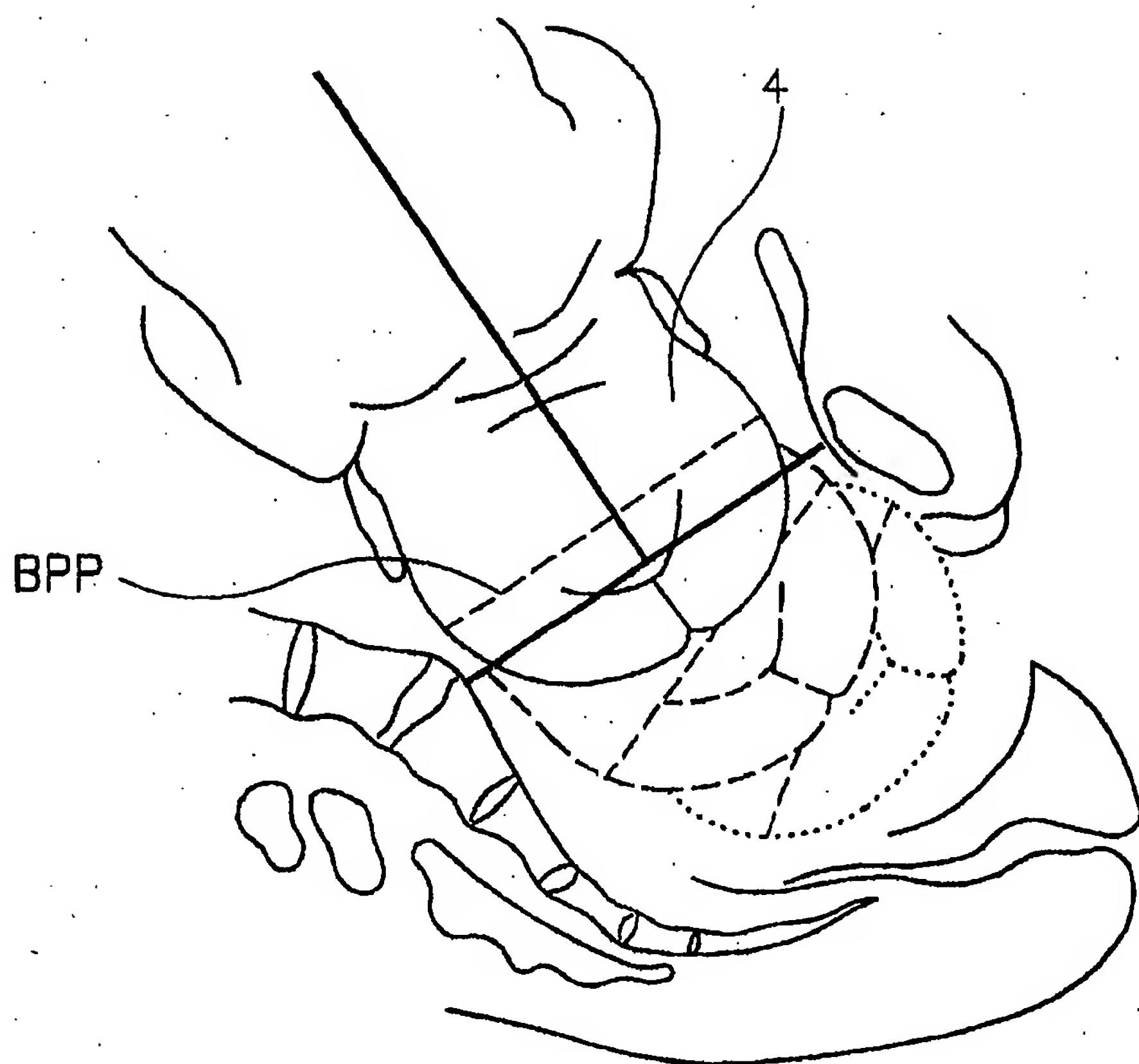


FIG.8

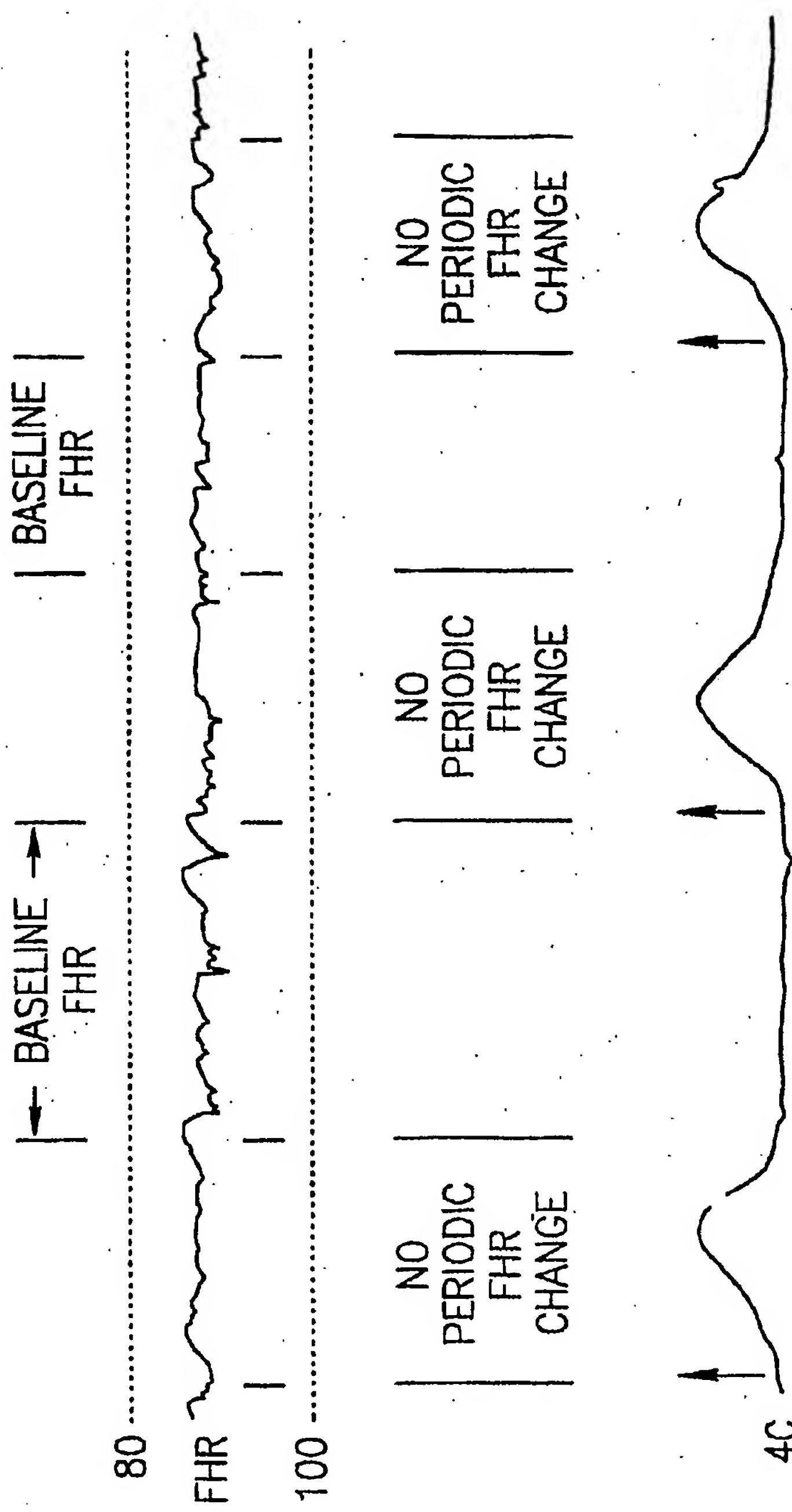


FIG. 9

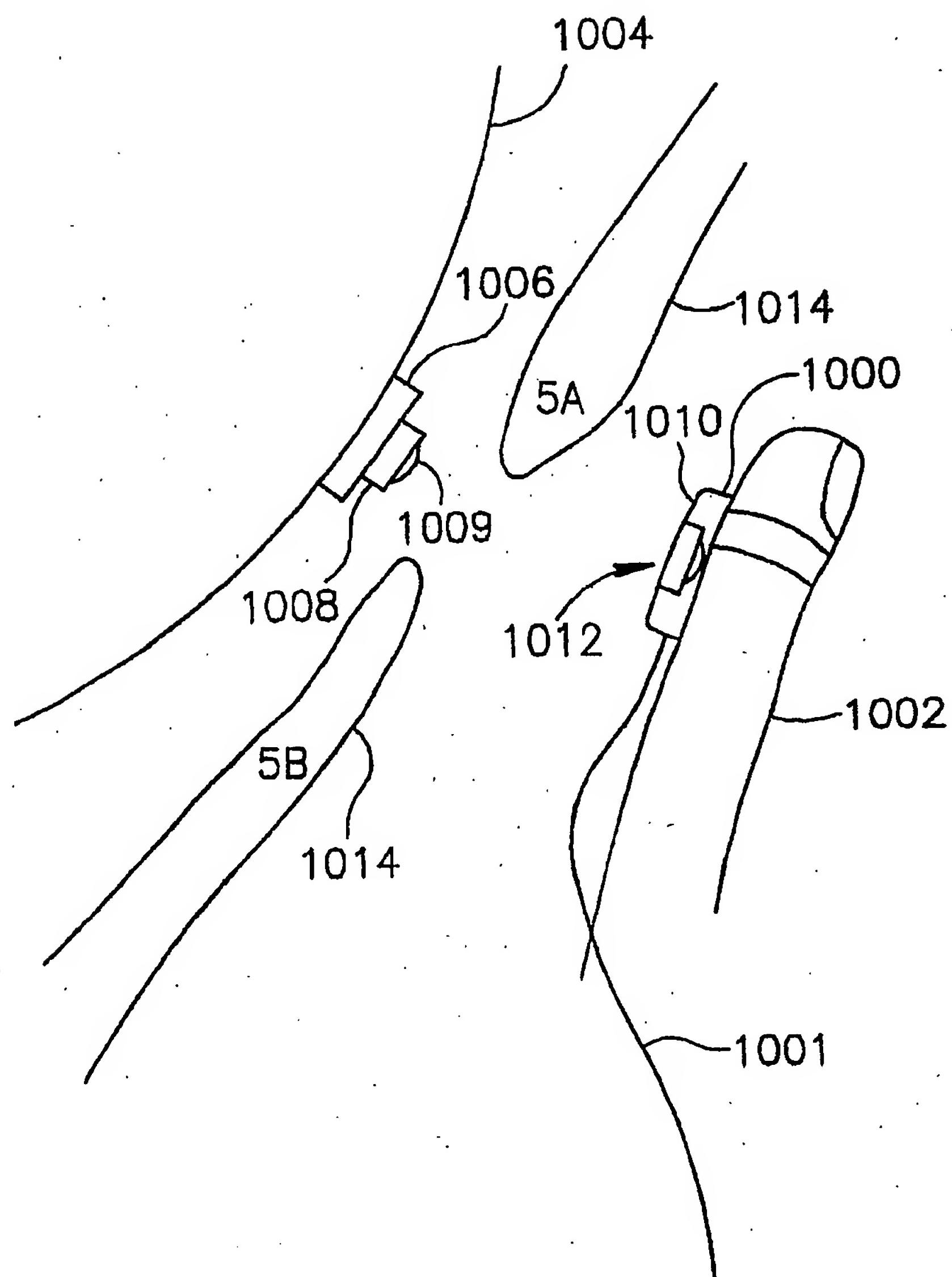


FIG.10A

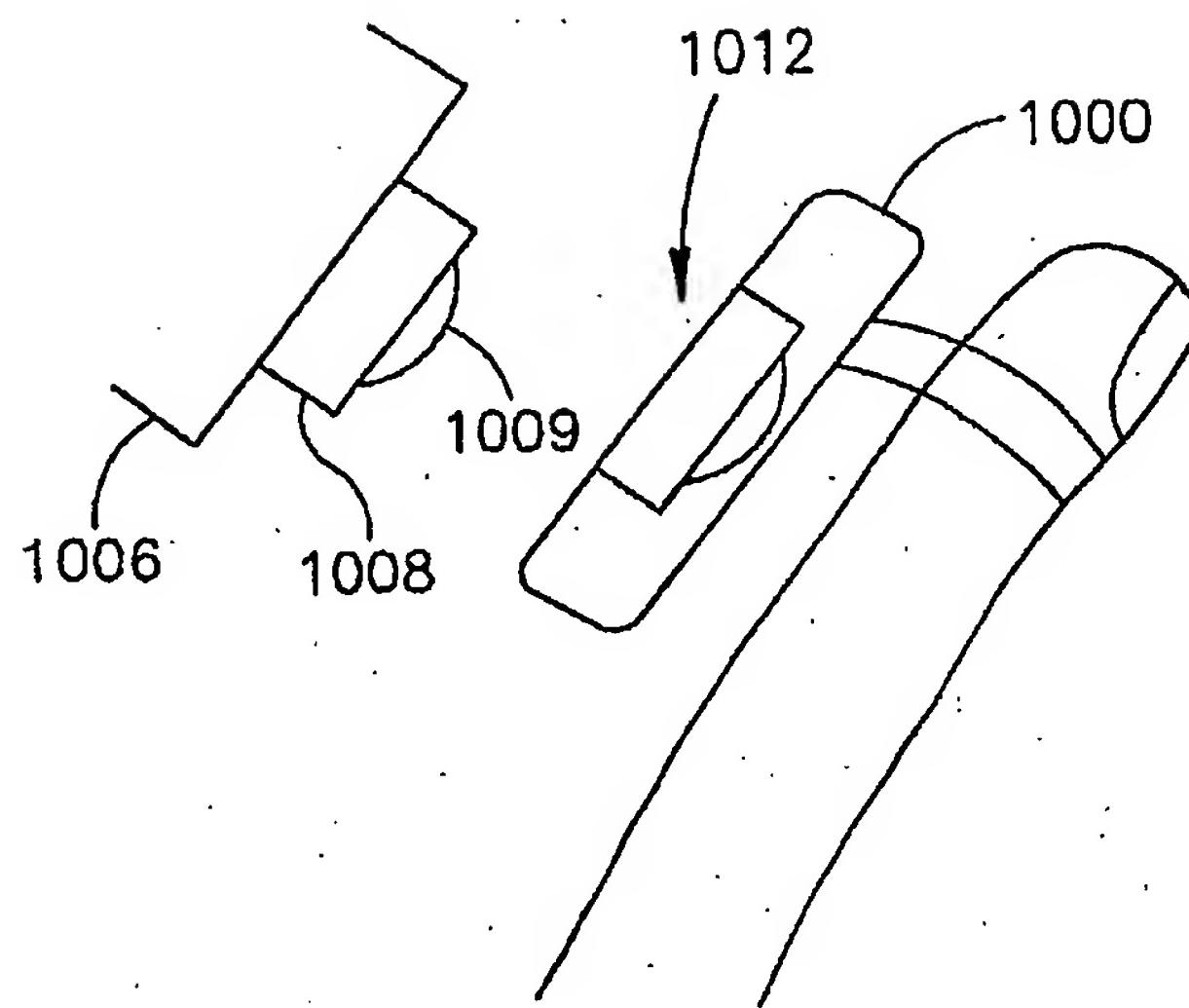


FIG.10B

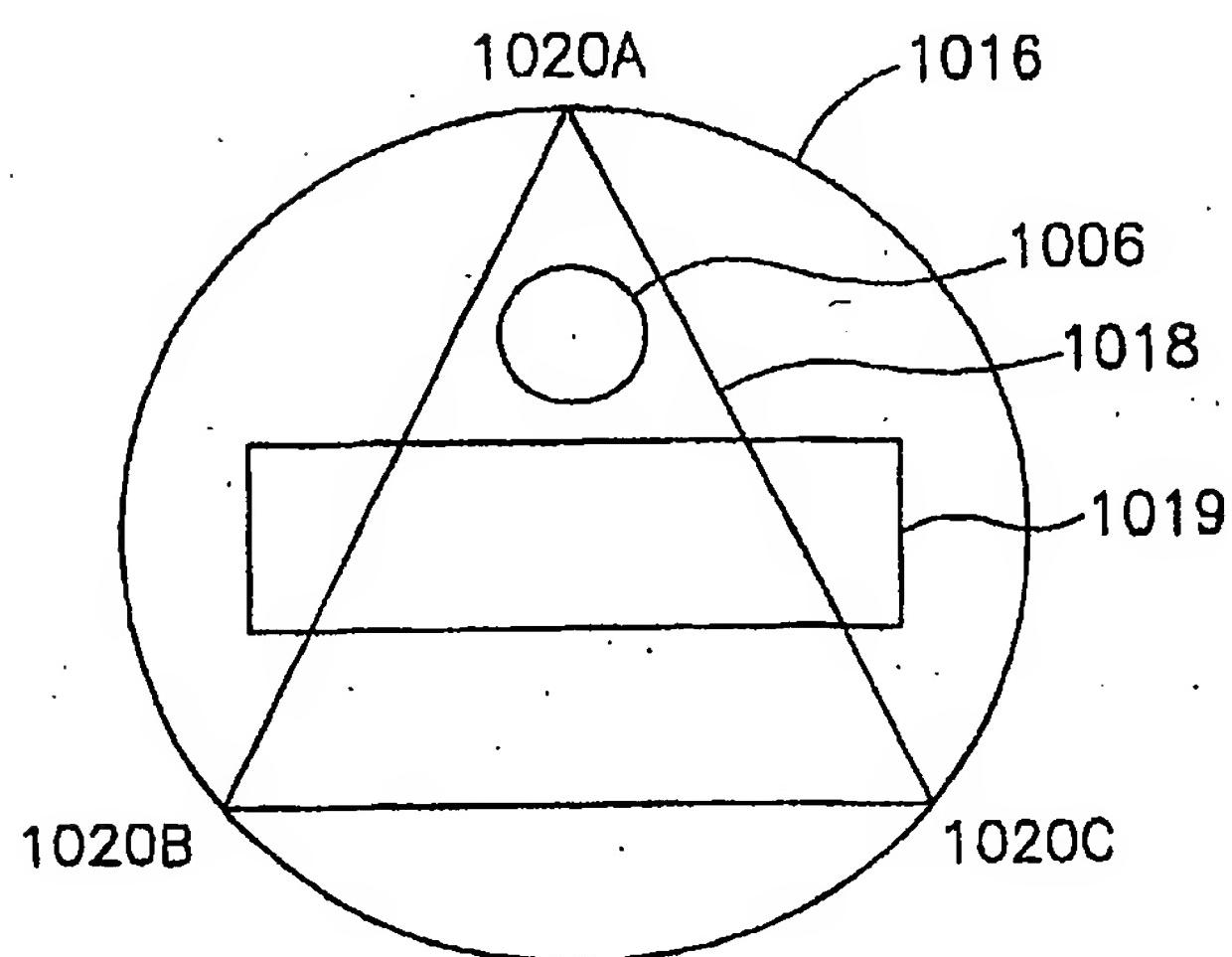


FIG.10C

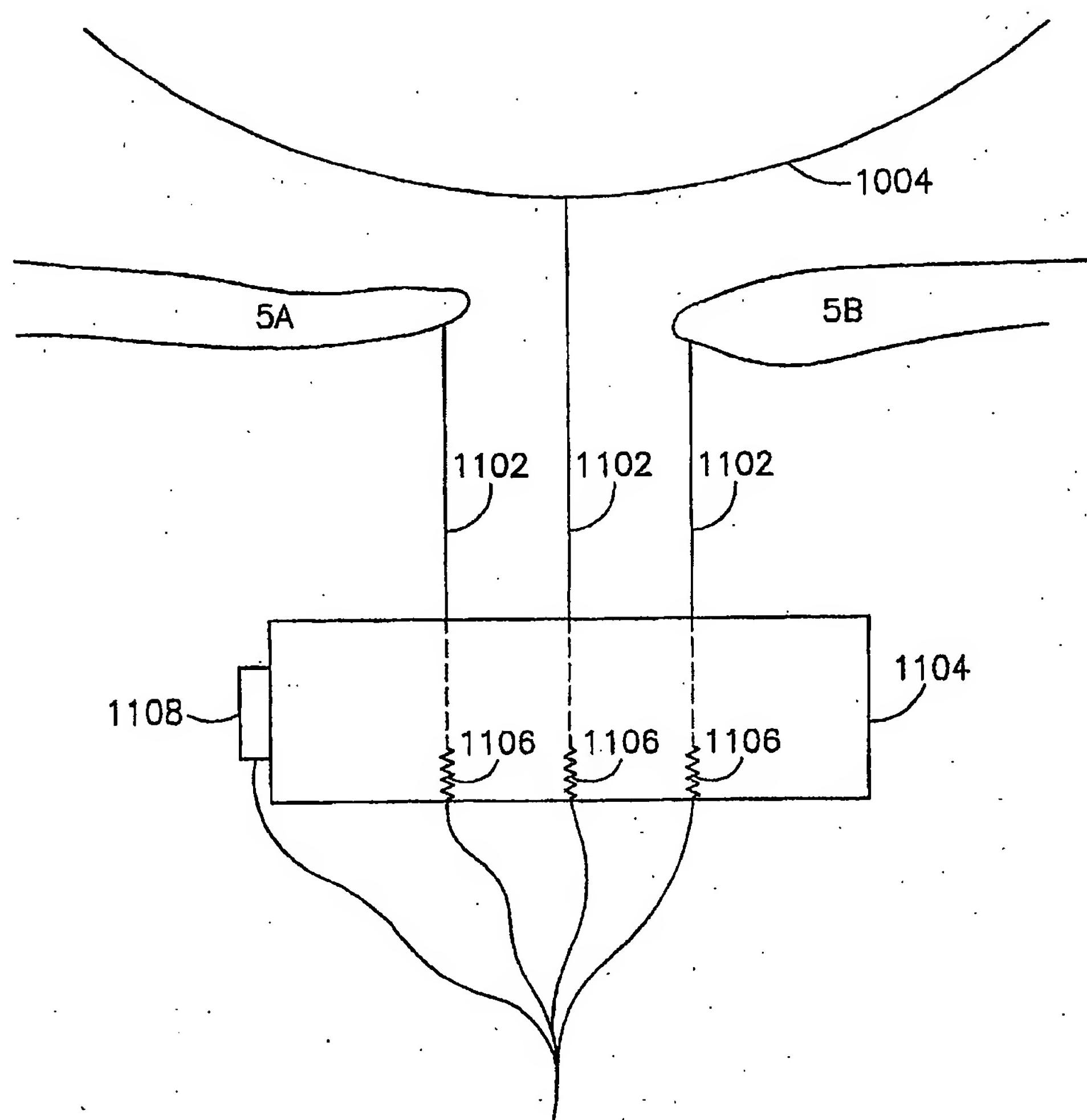


FIG.11

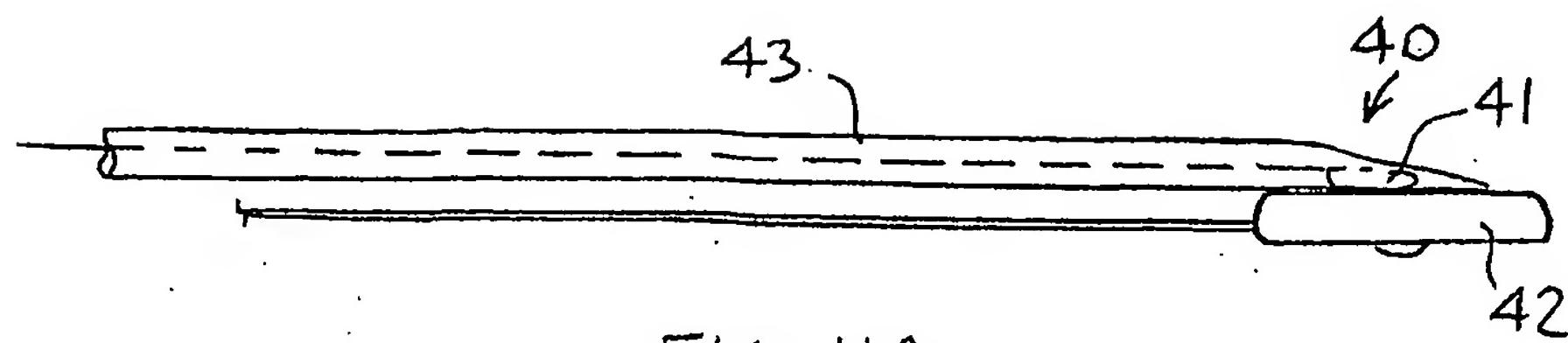


FIG. 11A

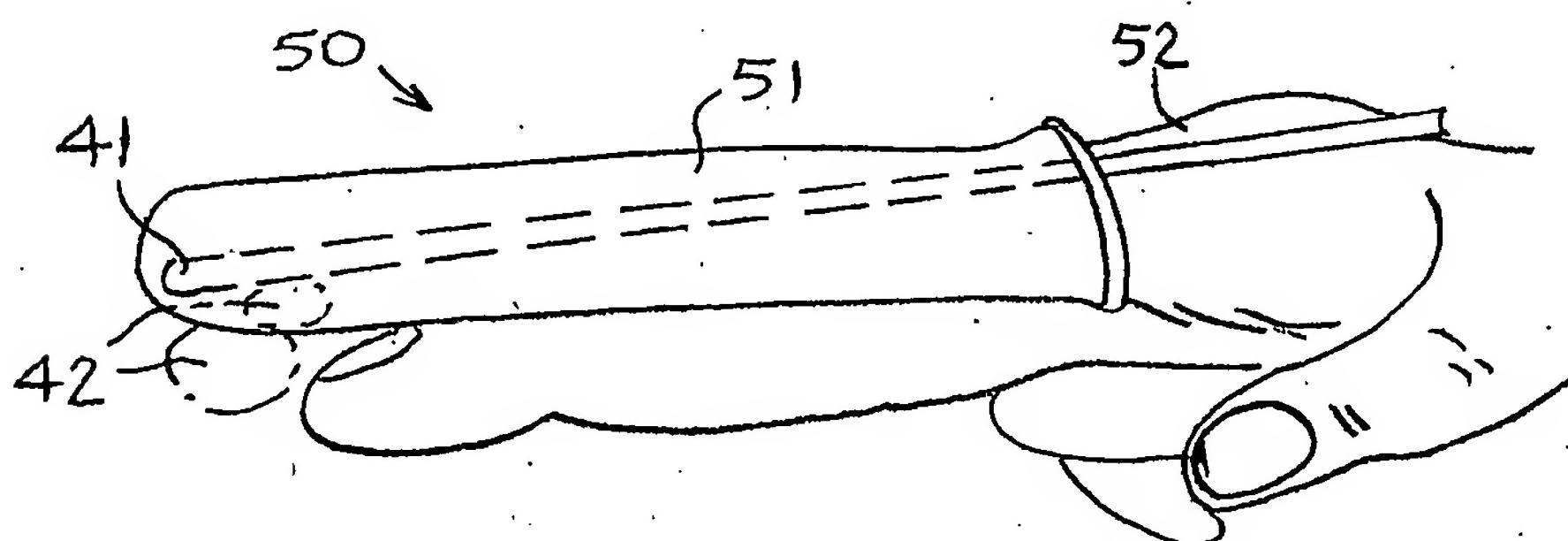


FIG. 11B

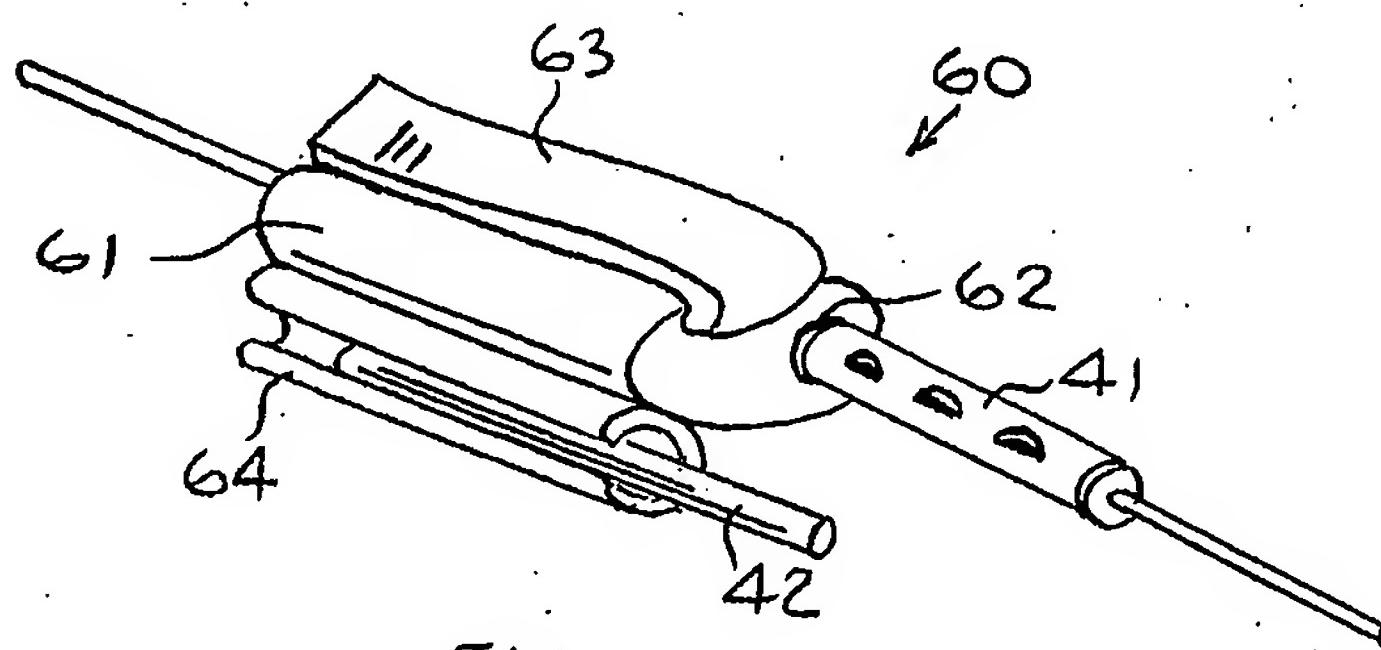
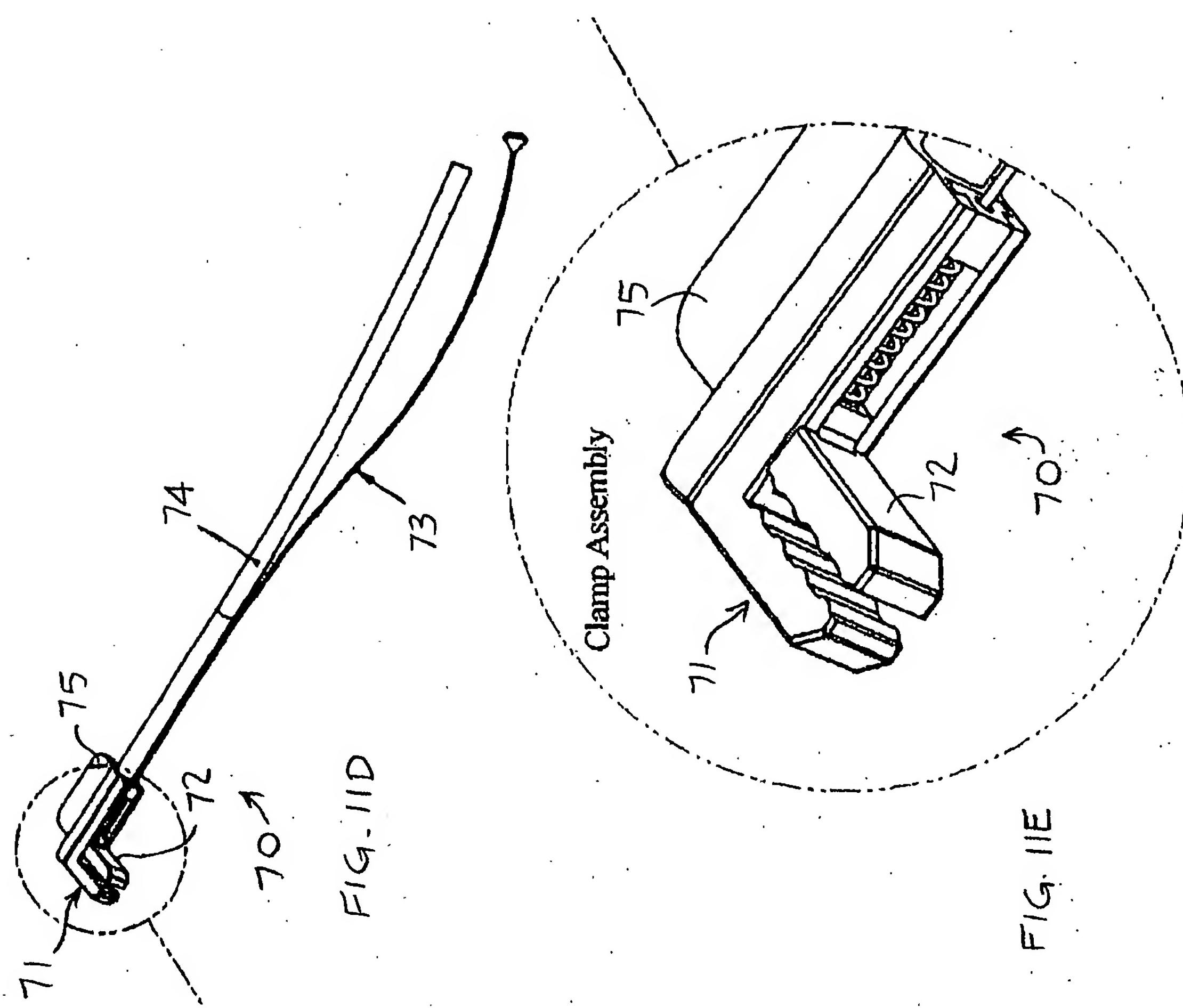


FIG. 11C



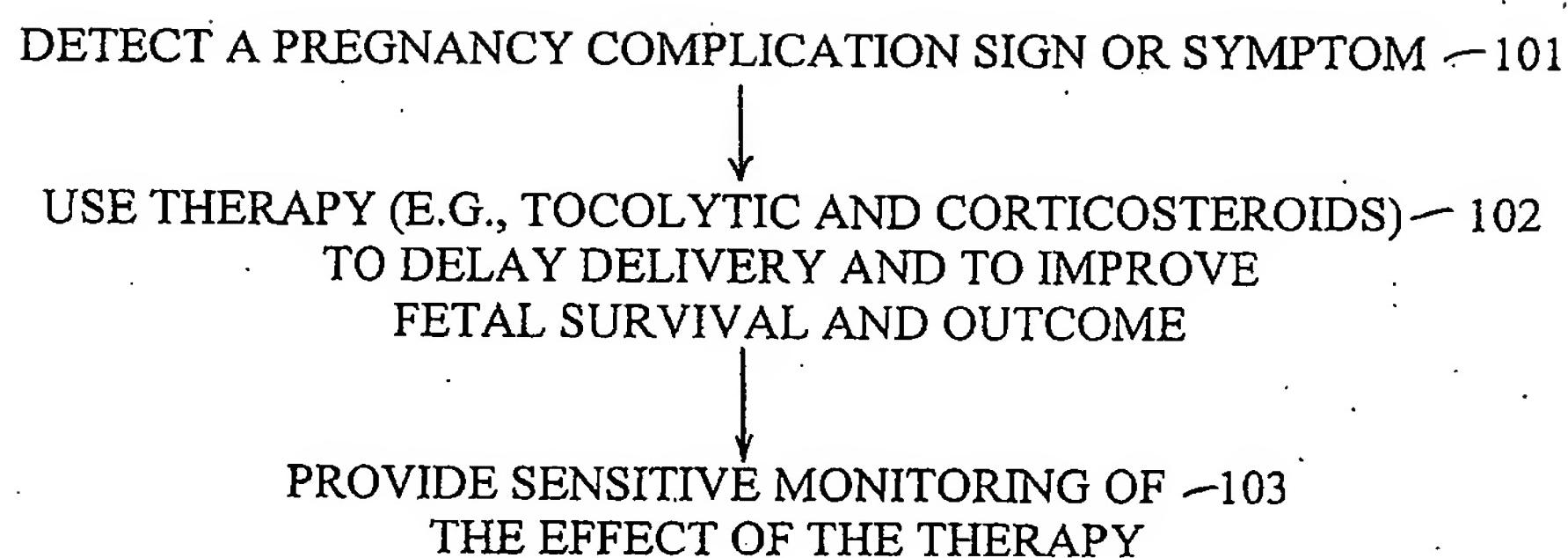


FIG. 12

201

IDENTIFY THE EUB (EFFECTIVE ULTRASOUND BEAM) AREA

TO ENHANCE THE EUB AREA, BEFORE FINDING IT, A THRESHOLD FILTER MAY BE USED. THEN, A PREDEFINED ULTRASOUND BEAM SHAPE (RECTANGLE, TRAPEZOID, ETC.) MAY BE SOUGHT AND FOUND



IDENTIFY THE FETAL HEAD CONTOUR WITHIN THE EUB AREA ~202



ENHANCE VIDEO IMAGE

USE SMOOTHING FILTER TO PREPARE IMAGE,
FOLLOWED BY A CONTRAST ENHANCEMENT FILTER

203



ENHANCE CONTOUR OUTLINE RELATIVE TO REST OF IMAGE ~204



USE ELLIPSE MASK TO FIND FETAL HEAD CONTOUR ~205



MOVE, ROTATE AND/OR SCALE AROUND THE BOUNDING
RECTANGLE OF ELLIPSE MASK
UNTIL A BEST MATCH WITH IMAGE PIXELS IS FOUND



IDENTIFY BPD SIGNATURE WITHIN FETAL HEAD CONTOUR ~207



SEARCH BPD SIGNATURE IN CONTOUR AREA ~208



CALCULATE FIRST APPROXIMATION OF
SIGNATURE POSITION AND SIZE
BASED ON CONTOUR POSITION AND SIZE

209



USE IMAGE ENHANCEMENT THAT ENHANCES BPD SIGNATURE ~210

FIG. 13

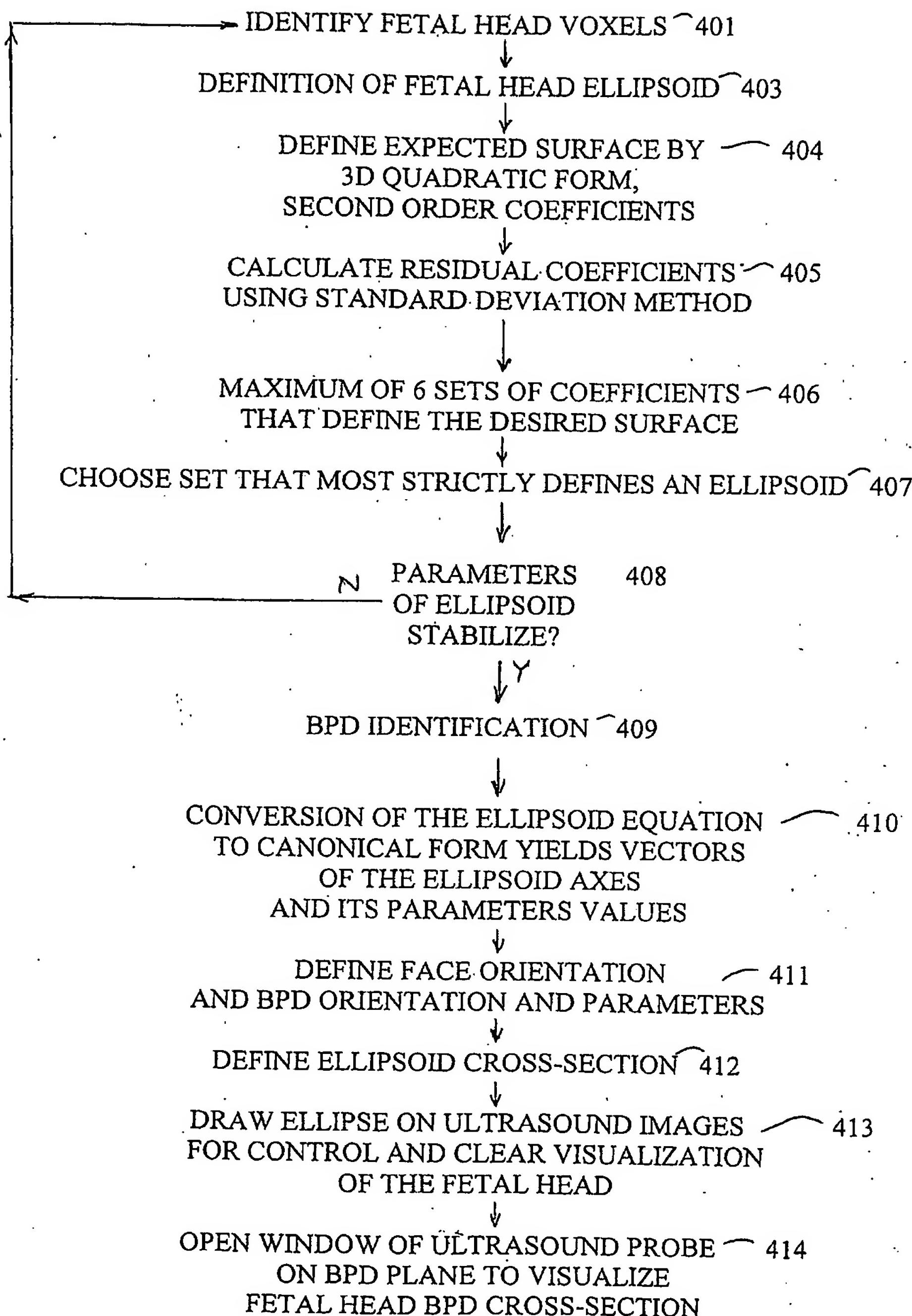


FIG. 14

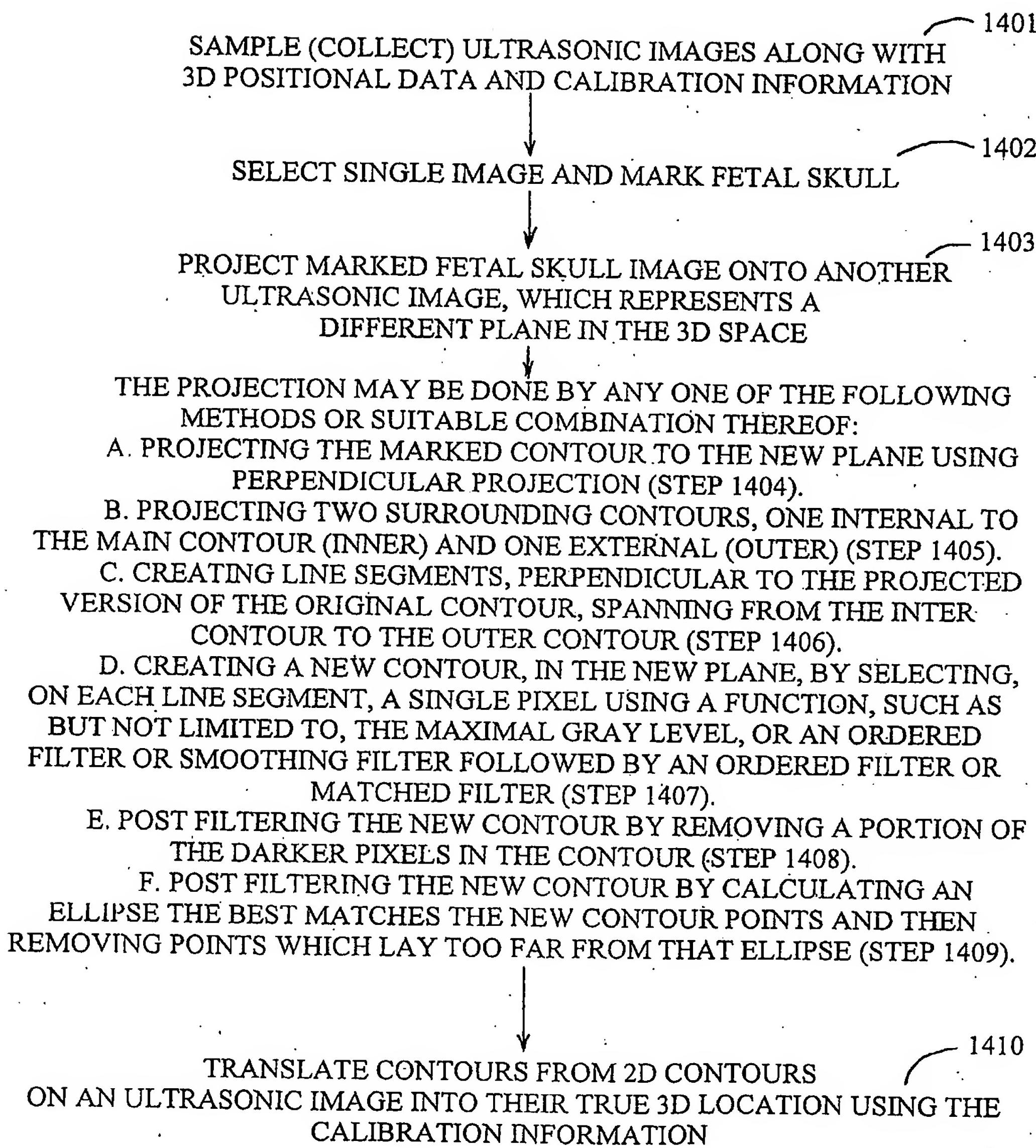


FIG. 14A

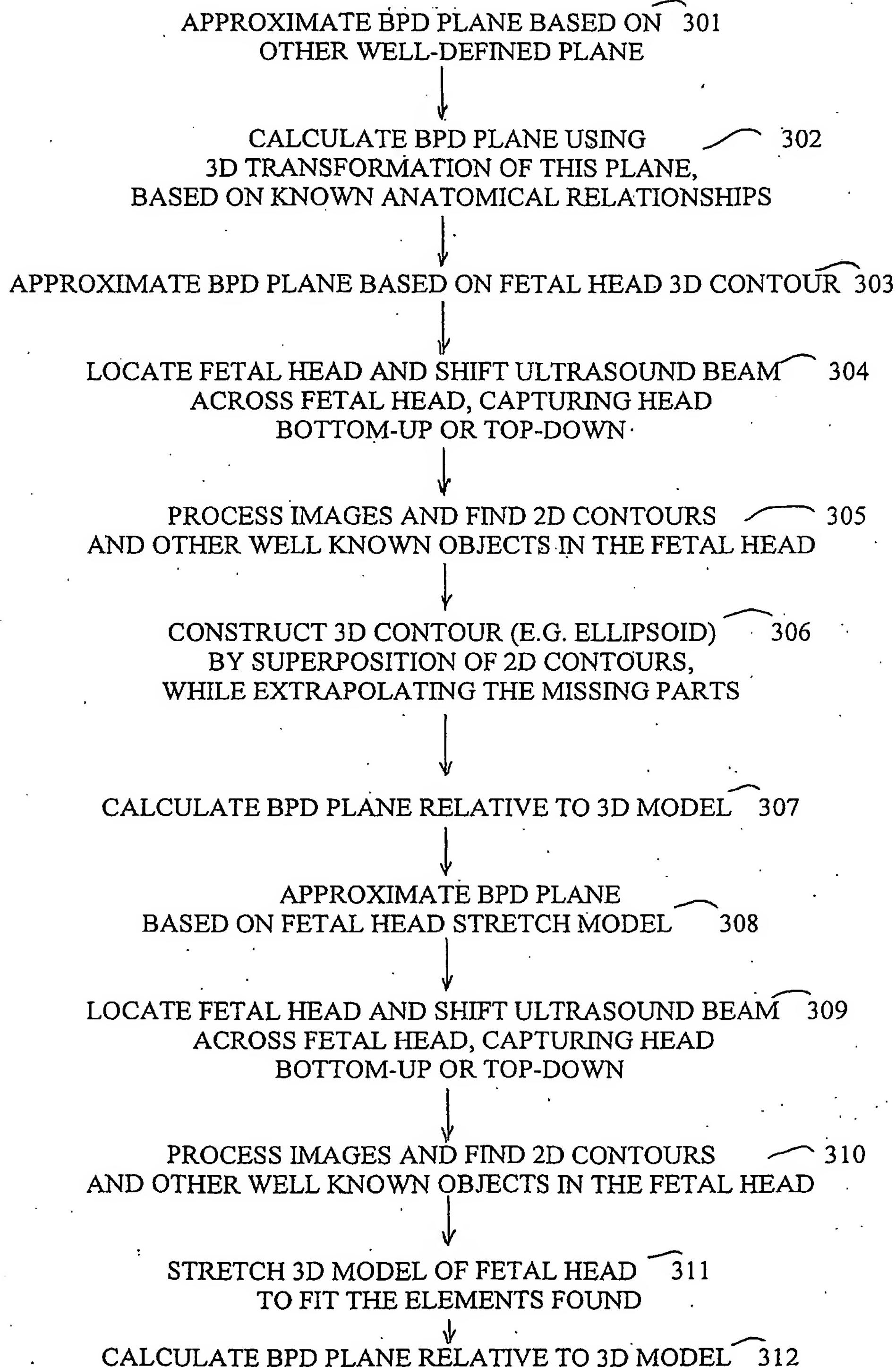


FIG. 15

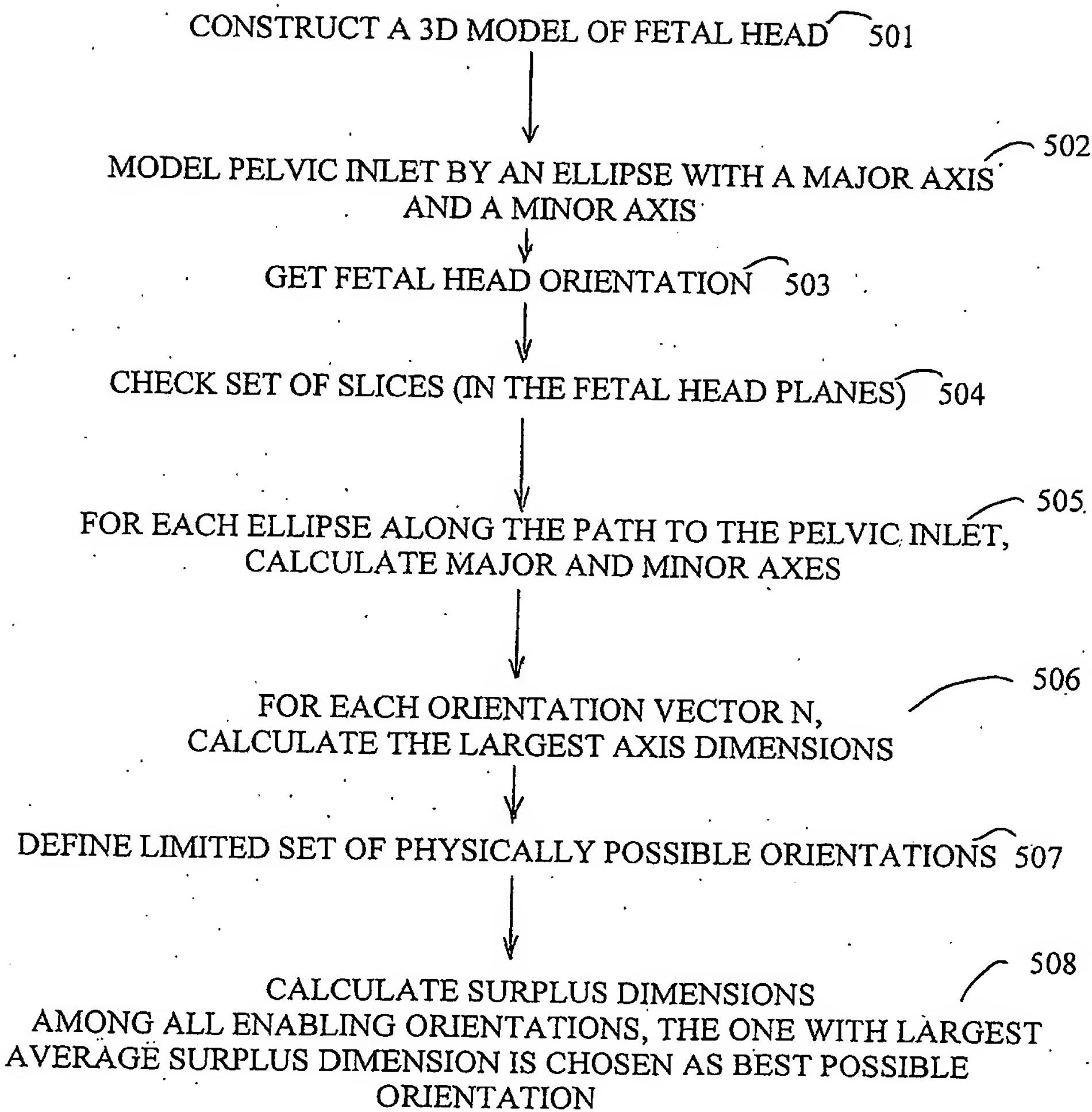


FIG. 16

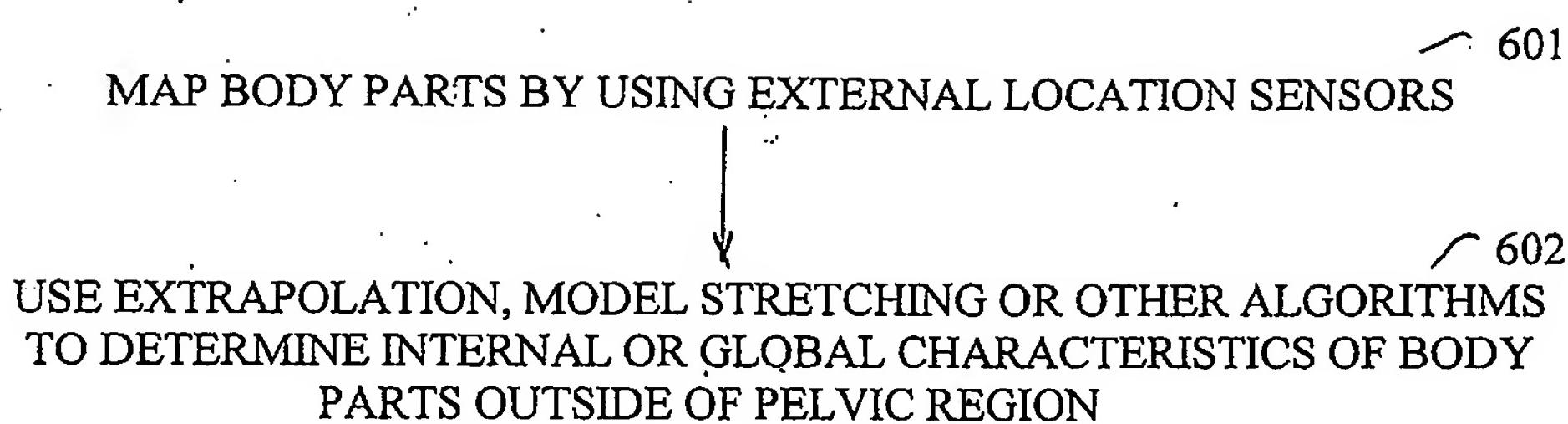


FIG. 17

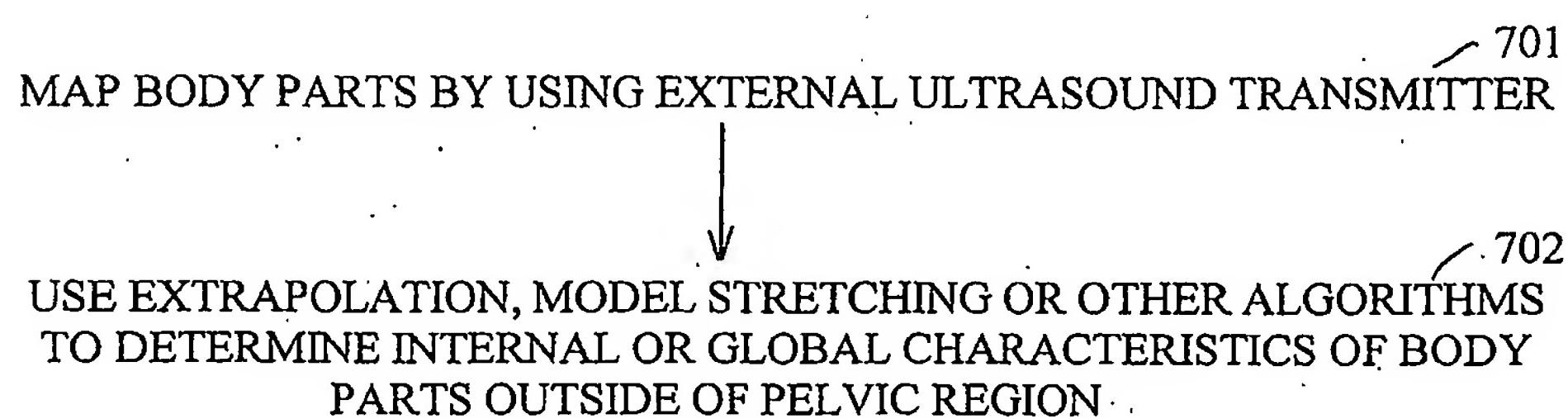


FIG. 18